

# BELMONT COMMUNITY PATH FEASIBILITY STUDY

Public Meeting #3 –  
Central Area

November 9, 2016



# AGENDA

- |                                |                              |
|--------------------------------|------------------------------|
| 1. Introduction                | Russell Leino                |
| 2. Purpose and Level of Design | Amy Archer                   |
| 3. Where We Left Off           | Amy Archer                   |
| 4. Alternatives Analysis       | Amy Archer & Kathleen Fasser |
| 5. Preliminary Matrix          | Amy Archer                   |
| 6. Public Engagement           | Open Discussion              |
| 7. Next Steps                  | Amy Archer                   |

# PURPOSE

To recommend a **preferred alternative** for a non-motorized, **multi-use path** through Belmont that will **serve** the Town's **residents as well as** “fill the gap” along **the Mass Central Rail Trail** (MCRT) between Waltham and Cambridge using the alignments from the CPAC as a base.

# LEVEL OF ANALYSIS/DESIGN

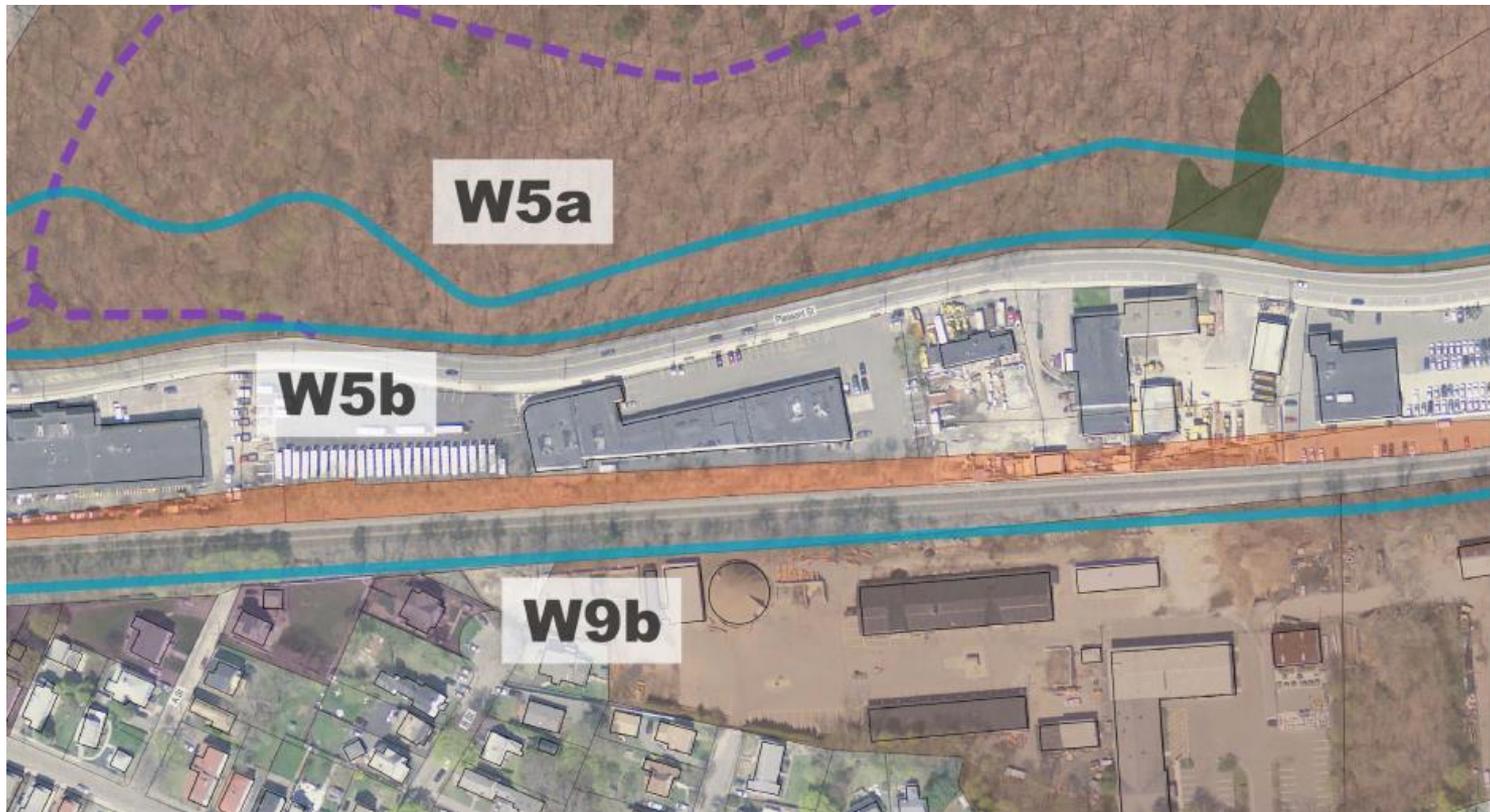
- Feasibility study intended to advance to conceptual design and planning cost estimate
  - Define path options – alignments and typical sections
  - Quantify impacts to property and resources
  - Quantify costs based on path definition
  - Weight and rank pros and cons of alternatives

# CPAC ALIGNMENTS



# WHERE WE LEFT OFF – WESTERN END

- Alignments W5a or W5b on north side and W9b on south side



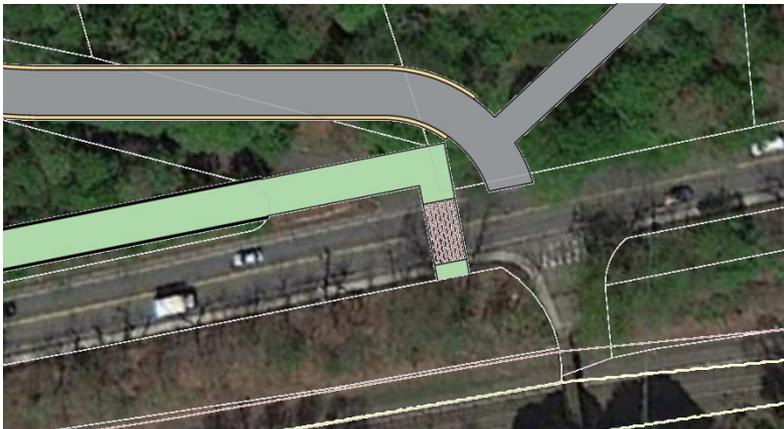
# CENTRAL SEGMENT ALIGNMENTS



# CONTINUE TO CLARK STREET (C1)

## ■ C1a: CPAC Alignment

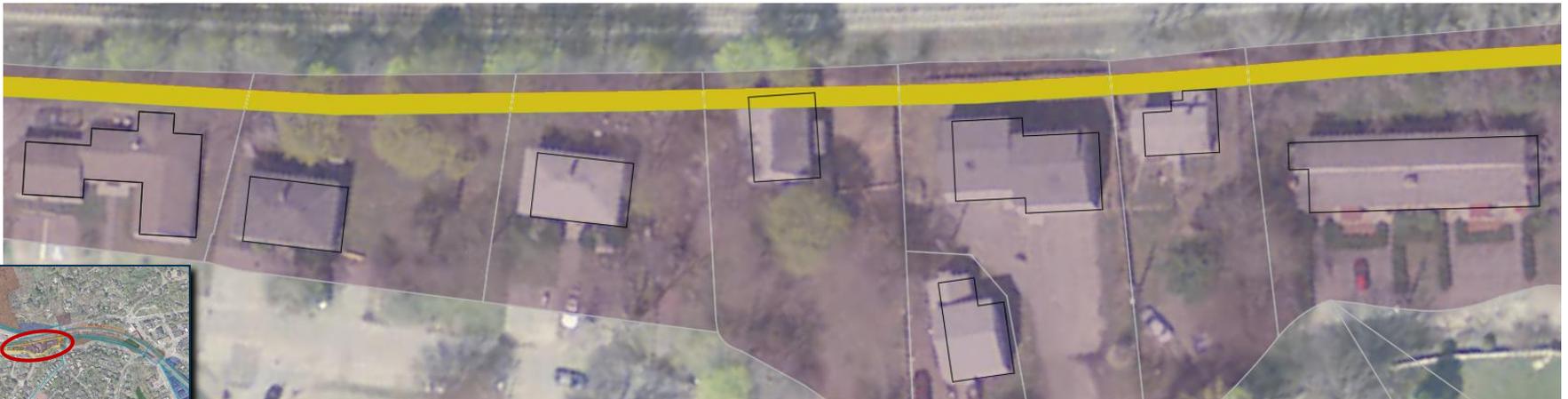
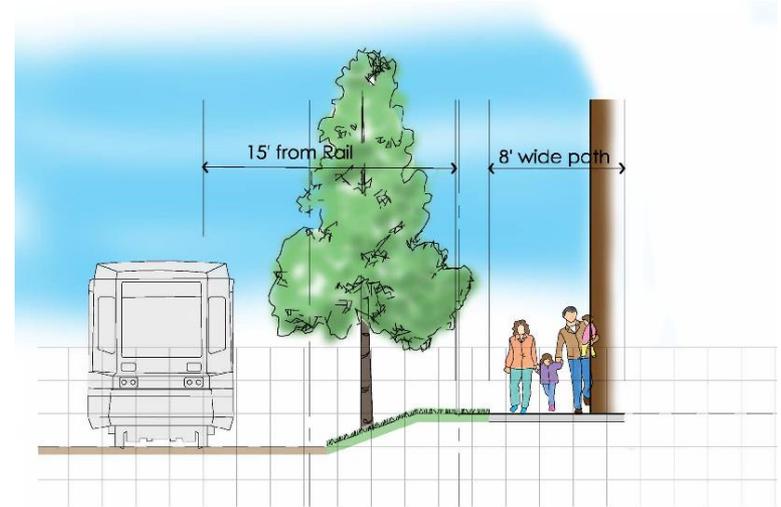
- Descend from McLean Woods (W5a) or continue along north side Pleasant Street (W5b)
- Merge into W5b
- Cross Pleasant Street at Snake Hill Road
- Potential to realign Snake Hill Road – reduce grade 20% to 12%



# CONTINUE TO CLARK STREET (C1)

## ■ C1b: CPAC Alignment

- Continue east from DPW on south side of rail
- 15' offset and 8' path minimums
- Encroaches on residential structures

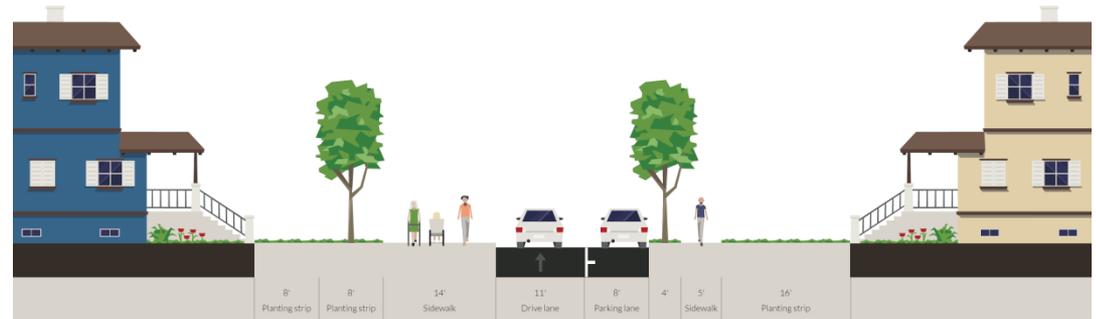


# CONTINUE TO CLARK STREET (C1)

## ■ C1c: CPAC Alignment

- Continue east from DPW through BHA development and Clark Lane
- North side of Pearson Road and south side of Clark Lane
- Clark Lane has 12% grade at east end

## Pearson Road



## Clark Lane



# CONTINUE TO CLARK STREET (C1)

- C1d: Alternative – Go around BHA/Clark Lane to the South
  - Make connection from DPW to Midland Street
  - Connect to Beech Street Center and Town Field

Midland Street



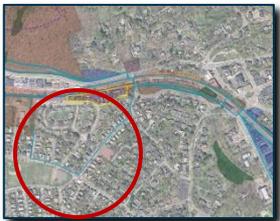
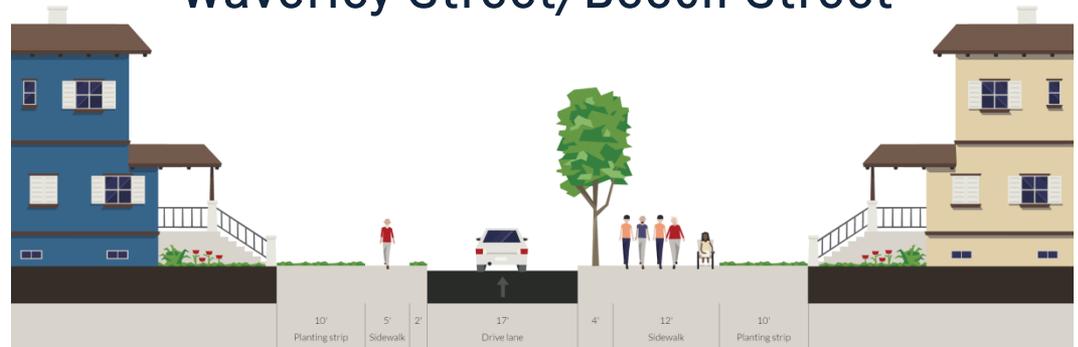
# CONTINUE TO CLARK STREET (C1)

- C1d: Alternative – Go around BHA/Clark Lane to the South
  - Continue along Waverley, Thomas and Clark Streets
  - Could consider converting Waverley/Beech Streets to one-way pair

## Waverley Street/Thomas Street

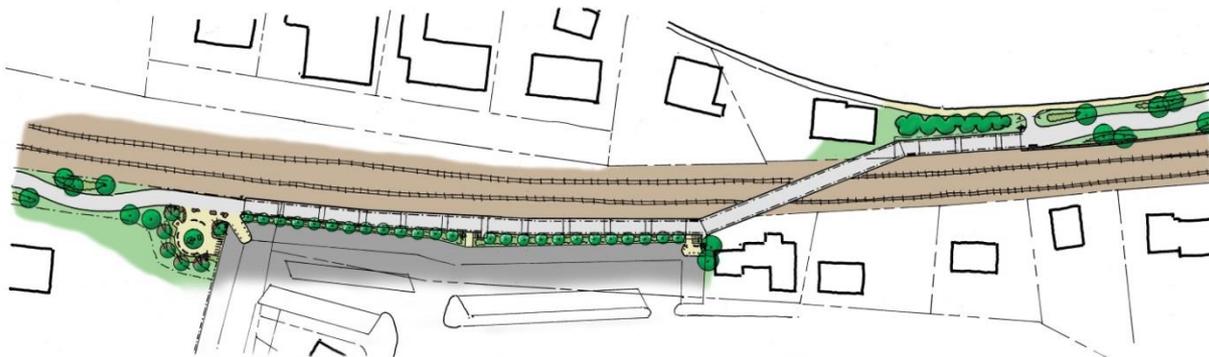
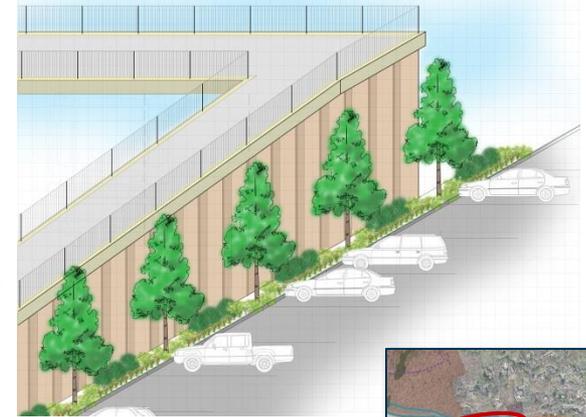
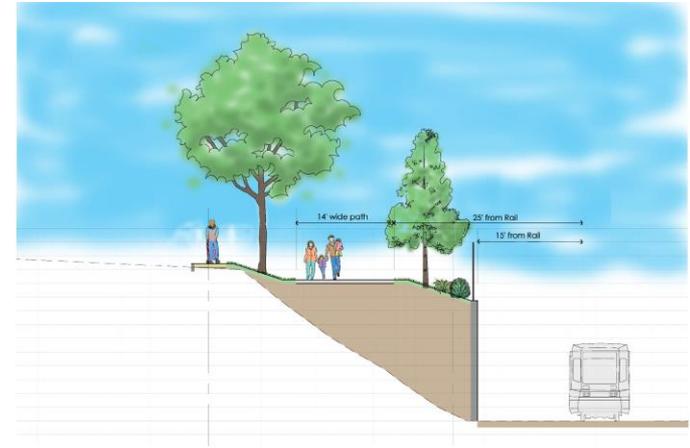


## Waverley Street/Beech Street



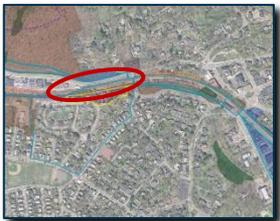
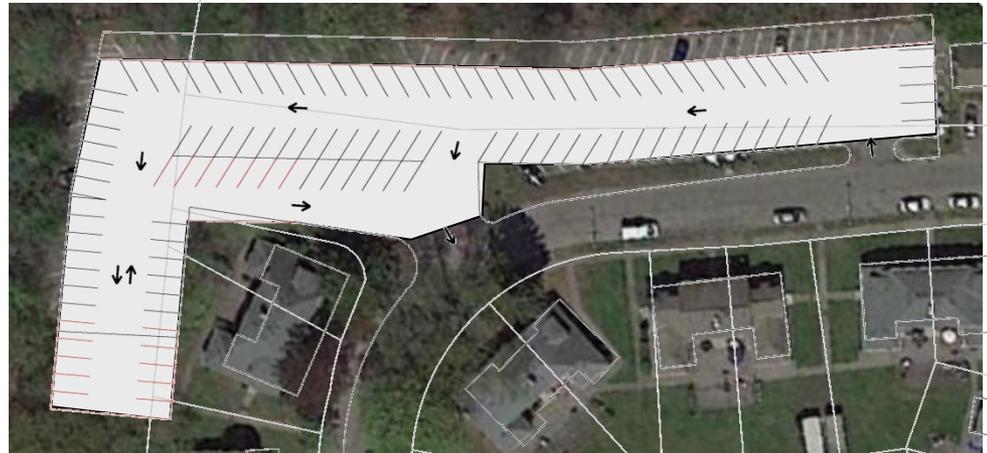
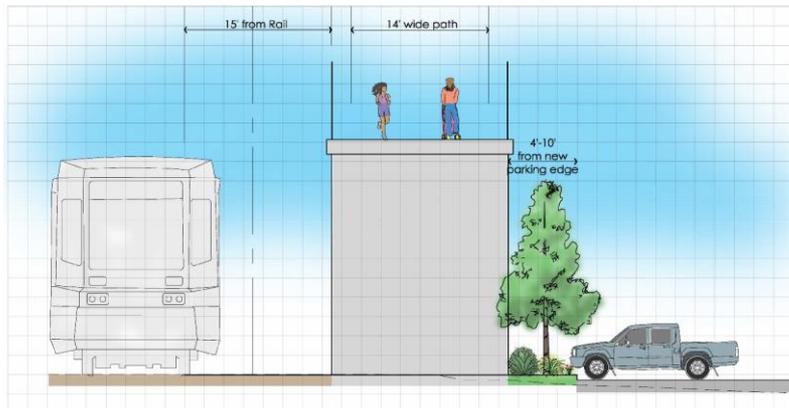
# CONTINUE TO CLARK STREET (C1)

- C1e: Alternative - Go around BHA/Clark Lane to the North
  - Make connection from BHA parking lot to south side of Pleasant Street
  - Connect to Pleasant Street businesses/redevelopment
  - Requires structure along BHA lot and bridge
  - Requires retaining wall (approx. 18' tall) for 600' along Pleasant Street



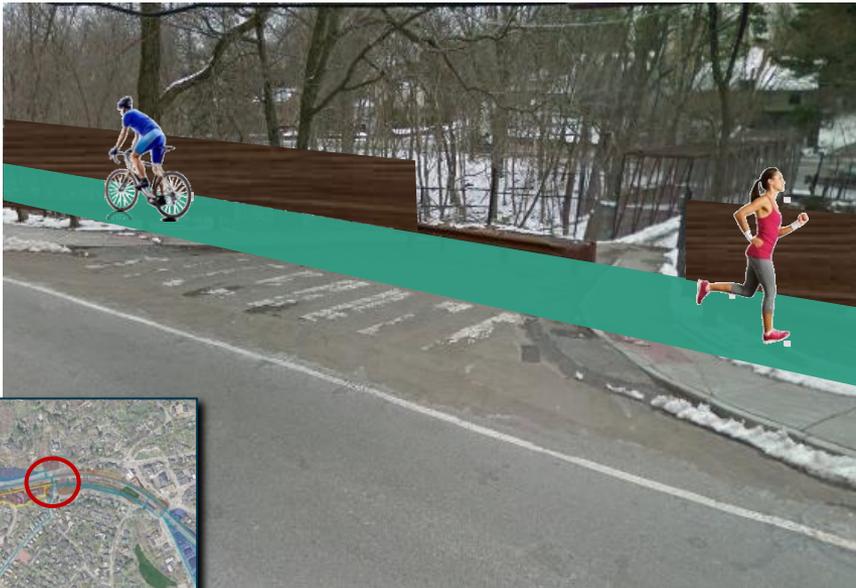
# CONTINUE TO CLARK STREET (C1)

- C1e: Alternative – Go around BHA/Clark Lane to the North
  - Fits with 15' offset to rail and no parking impacts
  - Over 400' stretch – not a pinch point
  - Can fit 25' offset with minor lot modifications



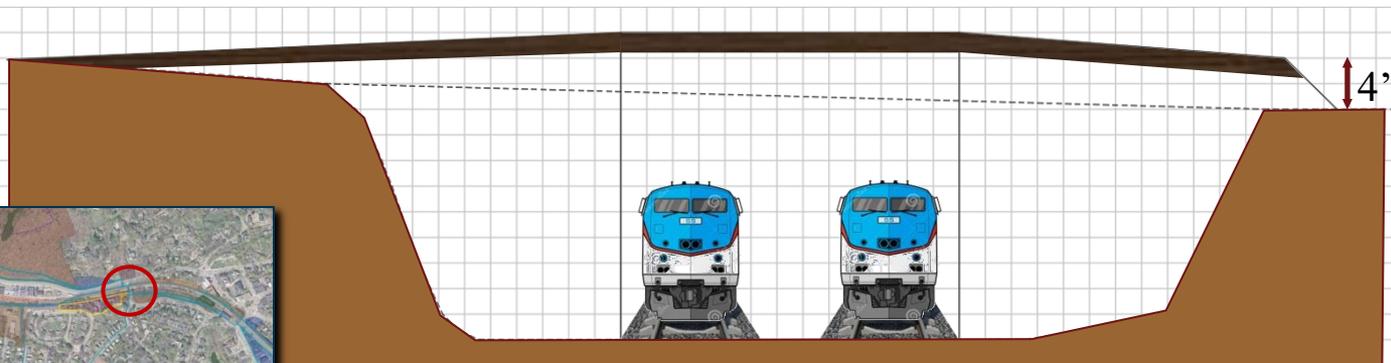
# CLARK STREET CONNECTIONS (C2)

- C2a: North to North
  - From C1a or C1e
  - Continue across Clark Street on south side of Pleasant Street
  - Maintain existing Clark Street Bridge



# CLARK STREET CONNECTIONS (C2)

- C2b: North to South or South to North
  - Reconstruct Clark Street Bridge
  - Needs to be raised approx. 5' to meet 22'-6" clearance required by MBTA
  - Requires regrading on south side



# CLARK STREET CONNECTIONS (C2)

## ■ C2c & C2d: South to South

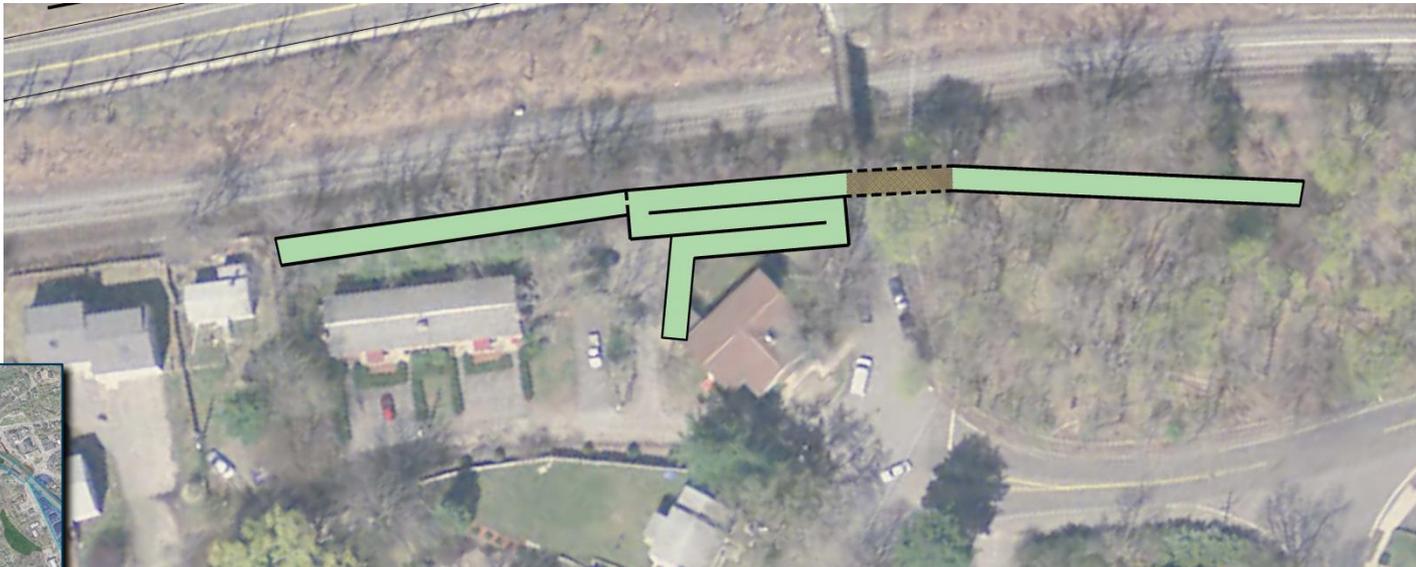
- Maintain existing Clark Street Bridge

### ■ From C1b or C1c

- Tunnel under Clark Street behind existing abutment
- Ascend with retention/switchback to Clark Street and back down to Royal Road Woods

### ■ From C1d

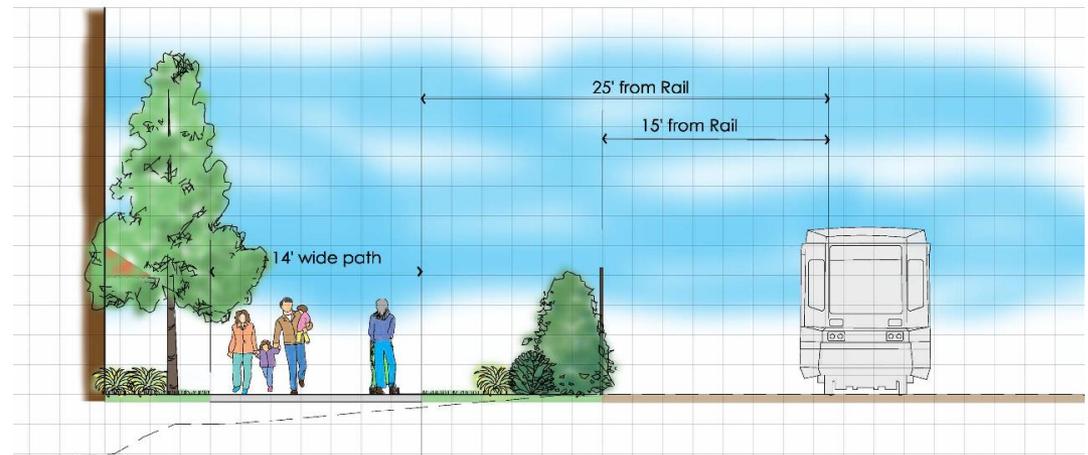
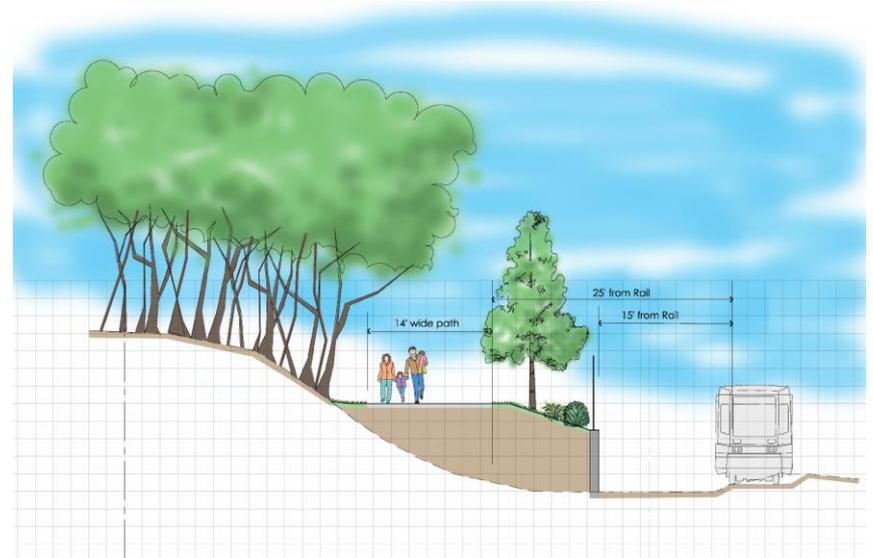
- Cross Clark Street at grade north of Clark Lane



# CLARK STREET TO BELMONT CENTER (C3)

## ■ C3a: CPAC Alignment

- Continue along north side of rail
- Short wall needed east of Clark Street
- Connect to redevelopment of Municipal Light building
- Enters Belmont Center at track level – westbound platform



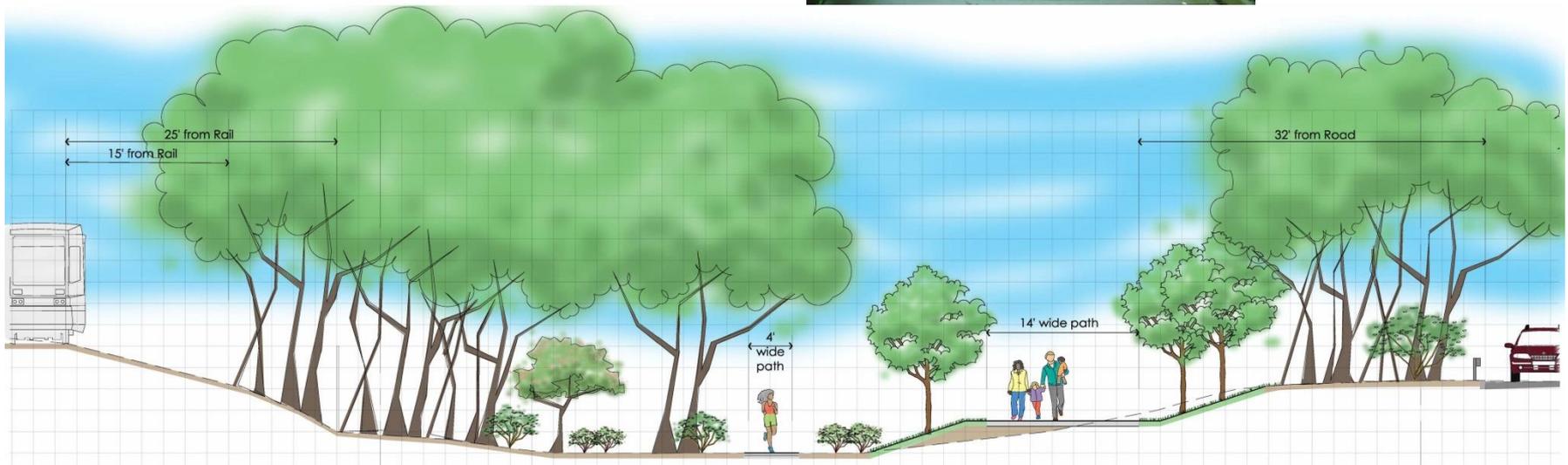
# CLARK STREET TO BELMONT CENTER (C3)

## ■ C3b: CPAC Alignment

- Continue along south side of rail
- Run through Royal Road Woods
- Connects to Belmont Center Station
- Allows for separate running path

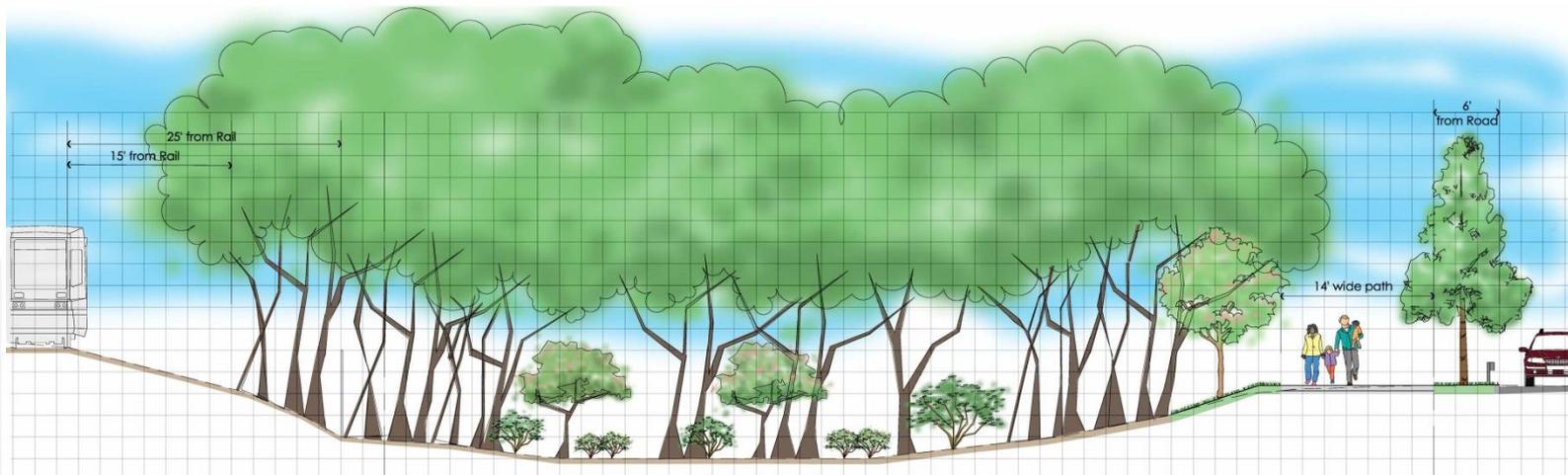
## ■ Wetland impacts not fully defined

- May require extensive boardwalk



# CLARK STREET TO BELMONT CENTER (C3)

- C3c: Alternative – Run along Royal Road
  - Minimizes impacts to wetlands
  - Increases connection to neighborhood
  - Allows more room for park space



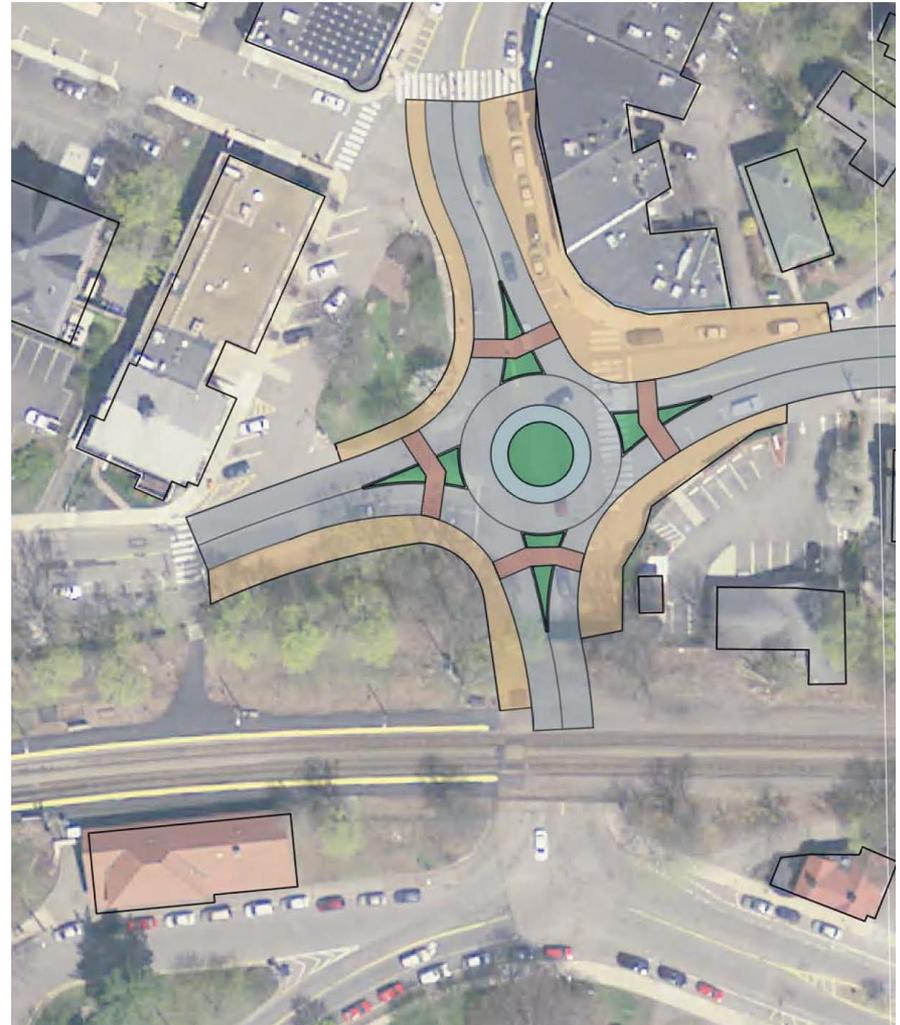
# BELMONT CENTER CONNECTIONS (C4)

- C4a: North Side of Rail
  - Continue at rail level across existing bridge structure
  - Create park and enhance downtown connection



# BELMONT CENTER CONNECTIONS (C4)

- C4b: Concord Avenue Underpass
  - Descend or ascend to/from street through park
- C4c: Cross Concord Avenue
  - Signalized street crossing
  - Roundabout



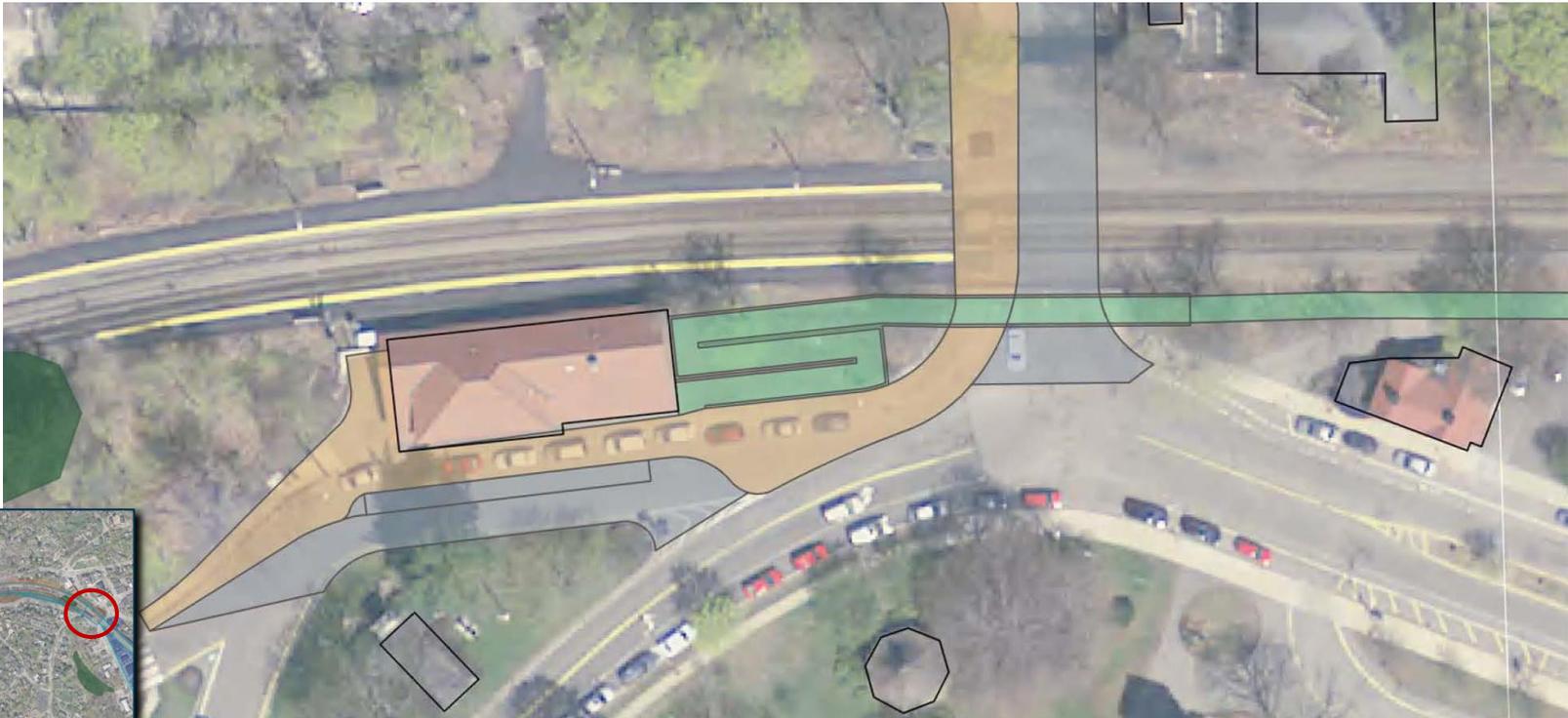
# BELMONT CENTER CONNECTIONS (C4)

- C4d: Station Underpass
  - Widen existing station access tunnel



# BELMONT CENTER CONNECTIONS (C4)

- **C4e: South Side Switchback**
  - Ascend with switchback to track level
  - Structure adjacent to Belmont Center Station
  - Bridge parallel historic overpass



# SURVEY MATRIX OPTIONS RESULTS

- Environmental, Land Use, Design, Social, and Fiscal: **ALL Important**
- Least Important: Pocket parks and dog runs
- Most Important:
  - **Community connections**
  - **High quality recreation**

# INITIAL COMPARISON

Alignment Stretch/Link	Access and Connectivity	Environmental Impacts	Property Impacts	Sense of Security/Comfort	Relative Cost	Total
W#x, C#x, E#x	3	1	3	2	2	11

## PURPOSE OF INITIAL COMPARISON

1. TO START THE CONVERSION
2. TO IDENTIFY IF ONE OR MORE CATEGORIES SHOULD BE WEIGHTED MORE OR LESS THAN ANOTHER

# INITIAL COMPARISON

Alignment Stretch/Link	Access and Connectivity	Environmental Impacts	Property Impacts	Sense of Security/ Comfort	Relative Cost	Total
W#x, C#x, E#x	3	1	3	2	2	11

GENERALLY : 1= least feasible, 2=feasible 3=most feasible ∴ **Highest Total = BEST**

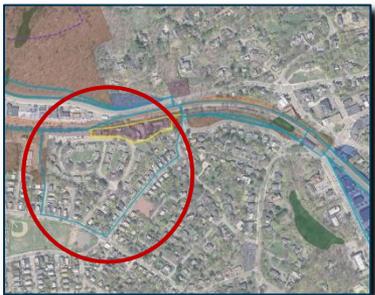
## CATEGORIES:

- Access and Connectivity
- Environmental Impacts
- Property Impacts:  
EXAMPLE Private Residence=0; Private Other=1; Construction Easement=2; None =3
- Sense of Security/Comfort  
EXAMPLE Remoteness/Great Distance for Fire & Safety = 1; On-Road=2; Off-Road=3
- Relative Cost

# INITIAL COMPARISON

1= least feasible, 3=most feasible Highest Total = BEST

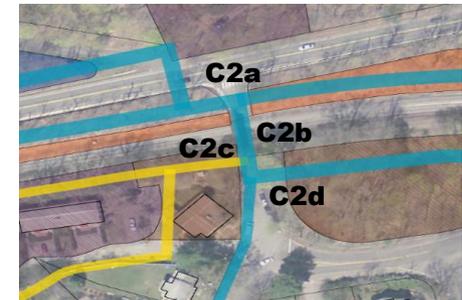
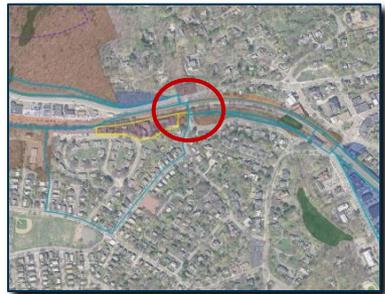
Central Area Stretch/Link	Access and Connectivity	Environmental Impacts	Property Impacts	Sense of Security/ Comfort	Relative Cost	Total
C1-a North Side Pleasant	2	2	3	2	2	11
C1-b South Side Tracks	1	3	0	2	1	7
C1-c Pearson & Clark Ln	2	3	1	2	2	10
C1-d South Connection	3	3	2	2	2	12
C1-e North Connection	3	3	3	3	1	13



# INITIAL COMPARISON

1= least feasible, 3=most feasible Highest Total = BEST

Central Area Stretch/Link	Access and Connectivity	Environmental Impacts	Property Impacts	Sense of Security/ Comfort	Relative Cost	Total
C2-a North Side of Rail	2	3	3	3	2	13
C2-b Cross Clark Bridge	3	3	3	3	1	13
C2-c South Under Clark	1	2	1	1	1	6
C2-d South Across Clark	2	3	1	2	2	10



# INITIAL COMPARISON

1= least feasible, 3=most feasible Highest Total = BEST

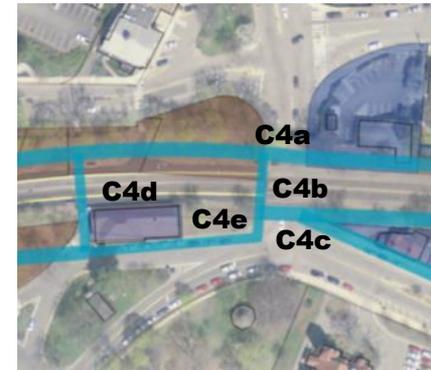
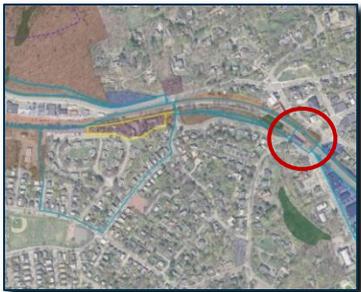
Central Area Stretch/Link	Access and Connectivity	Environmental Impacts	Property Impacts	Sense of Security/ Comfort	Relative Cost	Total
C3-a North Side Tracks	2	2	3	2	2	11
C3-b Royal Road Woods	2	1	3	2	1	9
C3-c Royal Road	3	2	3	3	3	14



# INITIAL COMPARISON

1= least feasible, 3=most feasible Highest Total = BEST

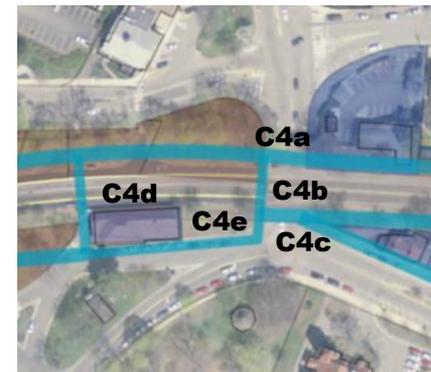
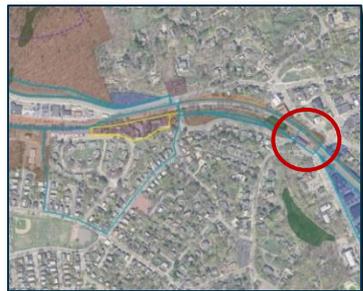
Central Area Stretch/Link	Access and Connectivity	Environmental Impacts	Property Impacts	Sense of Security/ Comfort	Relative Cost	Total
C4-a North to North	2	3	3	3	2	13
C4-a-b-c North to South – Concord Ave.	3	3	3	1	2	12
C4-a-b-e North to South - Switchback	3	2	3	2	1	11



# INITIAL COMPARISON

1= least feasible, 3=most feasible Highest Total = BEST

Central Area Stretch/Link	Access and Connectivity	Environmental Impacts	Property Impacts	Sense of Security/ Comfort	Relative Cost	Total
C4-c South to South – Concord Ave.	2	3	3	1	3	12
C4-e South to South - Switchback	2	2	3	2	1	10
C4-b-a South to North – Concord Ave.	3	3	3	2	2	13
C4-d-a South to North - Underpass	3	3	3	2	1	12



# INITIAL COMPARISON

## WHAT RISES TO THE TOP?

Central Area Stretch/Link	Access and Connectivity	Environmental Impacts	Property Impacts	Sense of Security/ Comfort	Relative Cost	Total
C1-e North Connection	3	3	3	3	1	13
C2-a North Side of Rail	2	3	3	3	2	13
C2-b Cross Clark Bridge	3	3	3	3	1	13
C3-c Royal Road	3	2	3	3	3	14
C4-a North to North	2	3	3	3	2	13
C4-b-a South to North – Concord Ave.	3	3	3	2	2	13



# DISCUSSION

- Interest in separated paths where space allows?



**Shared**



**Designated Bike Lane**



**Separated 'Quiet' Path**

Image by others

# DISCUSSION

## ■ Path access points?



# DISCUSSION

## ■ Access Point Amenities:

- Parking
- Restrooms
- Overhead gateway / arch
- Gateway bollards
- Signature vertical feature
- Signage
- Seating, picnicking
- Water fountain
- Bicycle racks
- Bicycle repair station
- Mile marker



Images by others

# WHAT'S NEXT?

- Consultant Team refine alternatives, continue coordination and further matrix assessment
- Design presentations and discussion:
  - Meeting 4: East End (Concord Underpass to Brighton) – November 16
  - Meeting 5: Hot Topics/Matrix (from Meetings 2 - 4) – December 7

<http://www.belmont-ma.gov/community-path-implementation-advisory-committee-cpiac/pages/community-path-feasibility-study>

[www.belmontmedia.org](http://www.belmontmedia.org)